(12)

BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

DIVISION: BYATARAYANAPURA

SUB DIVISION: KODIGEHALLI

Name of Work: *Estimate for Providing Basic Amenities and Procurement of Dustbins in Sahakaranagara, Byatarayanapura, Sanjeevininagar in Ward No. 07, Byatarayanapura.*

Job Code:

Estimated Cost: Rs. 149.00 Lakh(s)

BRUHAT BANGALORE MAHANAGARA PALIKE

YALAHANKA ZONE

Name of Work: Estimate for Providing Basic Amenities and Procurment of Dustbins in Sankaranagara, Byatarayanapura, Sanjeevininagar in Ward No. 07, Byatarayanapura.

(11)

			Estimate Cost Rs.					14900000.00	
Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
1	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, **in ordinary soil** not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 **Page No. 5 / Item No. 2.3 of PWD SR 2016-17**	Cum							
	Allround Centre Line		1	11.40	0.90	0.75	7.70		
	Columns		4	1.35	1.35	1.00	7.29		
							14.99		
	Deduction of Columns		4	1.50	0.90	0.90	-4.86		
							10.13		
	For 10 Units						**101.25**	204.12	**20667.00**
	Basic Rate	189.00							
	Area Weightage @ 8%	15.12							
	Total	**204.12**							
2	KSRB 4-1.3 : Providing and laying in position **plain cement concrete of mix 1:4:8** with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation**, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. **Page No.12, Item No. 4.3 of PWD SR 2016-17**	Cum							
	Allround Centre Line		1	11.40	0.75	0.15	1.28		
			4	1.20	1.20	0.15	0.86		
	Flooring Rooms		1	2.70	2.70	0.15	1.09		
	Front		1	3.00	0.60	0.15	0.27		
							3.51		
	Deduction of Columns		4	1.20	0.75	0.15	-0.54		
							2.97		
	For 10 Units						**29.70**	**5256.36**	**156114.00**
	Basic Rate	4867.00							
	Area Weightage @ 8%	389.36							
	Total	**5256.36**							
3	KSRB 5.2-3 : Providing and constructing granite / trap / basalt size stone masonry in **foundation with cement mortar 1:6, stone** hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13 **Page No. 23 / Item No. 5.6, PWD SR 2016-17**	Cum							
	Allround Centre Line		1	11.40	0.75	0.60	5.13		
							5.13		
	Deduction of Columns		4	0.45	0.15	0.60	-0.16		
							4.97		
	For 10 Units						**49.68**	4521.96	**224651.00**
	Basic Rate	4187.00							
	Area Weightage @ 8%	334.96							
	Total	**4521.96**							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
4	KSRB 5.3-3 : Providing and constructing granite / trap / basalt size stone masonry in **basement with cement mortar 1:6**, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13 **Page No. 23 / Item No. 5.9, PWD SR 2016-17**	Cum							
			1	11.40	0.45	0.45	2.31		
							2.31		
	Deduction of Columns		4	0.45	0.15	0.45	-0.12		
							2.19		
	For 10 Units						**21.87**	5405.40	**118216.00**
	Basic Rate	5005.00							
	Area Weightage @ 8%	400.40							
	Total	**5405.40**							
5	KSRB 15.1.3 Providing ruled pointing to coursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications **Page No. 113 / Item No. 15.3, PWD SR 2016-17**	Sqm							
			2	11.40		0.60	**13.68**		
	For 10 Units						**136.80**	105.84	**14479.00**
	Basic Rate	98.00							
	Area Weightage @ 8%	7.84							
	Total	**105.84**							
6	KSRB 2-4 : **Refilling available earth** around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. **Page No. 5 / Item No. 2.11 of PWD SR 2016-17**	Cum							
			Qty Vide Item No. 1				**10.13**	82.08	**831.00**
	Basic Rate	76.00							
	Area Weightage @ 8%	6.08							
	Total	**82.08**							
7	KSRB 4-6.1 : Providing and removing **centering, shuttering, strutting, propping** etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specificaitons. Specification No. KBS 4.6.2 **Page No. 15 / Item No. 4.28, PWD SR 2016-17**	Sqm							
	Column		4	4.80		0.60	11.52		
	Plinth		2	11.40		0.30	6.84		
	Lintel		2	11.40		0.15	3.42		
	Roof Beam		2	11.40		0.30	6.84		
							28.62		
	For 10 Units						**286.2**	249.48	**71401.00**
	Basic Rate	231.00							
	Area Weightage @ 8%	18.48							
	Total	**249.48**							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
8	KSRB 4.2.2 : Providing and laying in position **reinforced cement concrete of design mix M20 with OPC cement @ 320 kgs, with 20mm and down size graded granite metal**, coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum with superplastisiser @ 3lts confirming to IS 9103-1999 reaffirmed-2008 machine mixed, concrete laid in layers not exceeding 15cms thick, vibrated for all works in foundation plinth and ground floor level for roof slabs, staircase, lintels, retaining walls, walls (any thickness) including attached plasters, column, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window cills, fillets etc, including cost of all materials, labour, HOM of machinery, curing, complete as per specifications. Specification No. KBS 4.1,4.6, **No. 13 / Item No. 4.11 / PWD SR 2016-17**	Cum							
	Column		4	1.20	1.20	0.60	3.46		
			4	0.15	0.45	4.00	1.08		
	Plinth		1	11.40	0.15	0.30	0.51		
	Lintel		1	11.40	0.15	0.15	0.26		
	Roof Beam		1	11.40	0.15	0.30	0.51		
	Roof Slab		1	4.00	3.60	0.15	2.16		
							7.98		
	For 10 Units						**79.79**	6491.88	**517955.00**
	Basic Rate	6011.00							
	Area Weightage @ 8%	480.88							
	Total	**6491.88**							
9	KSRB 4.9.2: Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 **TMT Bars FE 500 Page No. 17 / Item No. 4.46.2 / PWD SR 2016-17**	Tonne							
	120 Kgs/ Cum		0.12	79.79			9.57		
	Basic Rate	60607.00					**9.57**	65455.56	**626685.00**
	Area Weightage @ 8%	4848.56							
	Total	**65455.56**							
10	KSRB 4-6.2 : Providing and removing centering, shuttering, strutting, propping etc., and **removal of form work for flat surface such as suspended floors, roofs, landings, balconies and likes, thickness upto 200 mm** including cost of all materials, labour complete as per specifications. Specification NO KBS 4.6.2 **Page No. 15 / Item No. 4.18 / PWD SR 2016-17**	Sqm							
	Roof Room		1	2.70	2.70		7.29		
	Front 1		1	3.60	0.60		2.16		
	Backside		1	3.60	0.40		1.44		
	Sides		1	3.00	0.30		0.90		
							11.79		
	For 10 Units						**117.90**	331.78	**39117.00**
	Basic Rate	313.00							
	Area Weightage @ 6%	18.78							
	Total	**331.78**							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
11	KSRB 5-14 : Providing and constructing load bearing wall with solid concrete blocks of size 400x150x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 4.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4 **Page No. 25 / Item No. 5.26.2, PWD SR 2016-17**	Sqm							
	Long Wall		2	3.00		3.00	18.00		
	Short Wall		2	2.70		3.00	16.20		
	Parapet Wall		2	3.00		0.45	2.70		
			2	2.70		0.45	2.43		
							39.33		
	Deduct for Openings Door		1	1.20		2.10	2.52		
	Windows		2	1.50		1.20	3.60		
	Lintel		1	11.40		0.15	1.71		
	Tie Beam		1	11.40		0.30	3.42		
							-11.25		
							28.08		
	For 10 Units						**280.80**	979.56	**275060.00**
	Basic Rate	907.00							
	Area Weightage @ 8%	72.56							
	Total	**979.56**							
12	KSRB 10-3 : Providing and laying integral cement based waterproofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc., consisting of following application. (a) Applying and grouting a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with proprietary water proofing compound conforming to IS:2645 over the RCC slab after cleaning the surface before treatment. (b) Laying cement concrete using broken brick bats 25mm to 100mm size with 50% of cement mortar 1:5 admixed with proprietary water proofing compound conforming IS:2645 over 20mm thick layer of cement mortar 1:5 admixed with proprietary water proofing compound to required slope and treating similarly the adjoining walls upto 300mm height including rounding off junctions of walls and slabs. (c) After two days of proper curing, applying a second coat of cement lurry admixed with proprietary water proofing compound (d) Finishing the surface with 20mm thick jointless cement mortar of mix 1:4 admixed with proprietary water proofing compound and finally finishing the surface with trowel and neat cement slurry	Sqm							
			1	3.60	3.00		**10.80**		
	For 10 Units						**108.00**	976.32	**105443.00**
	Basic Rate	904.00							
	Area Weightage @ 8%	72.32							
	Total	**976.32**							
13	KSRB15-3-13 : Providing 12mm thick cement plaster in single coat with cement mortar 1:3, to **ceiling** including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. **Page No. 114, Item No. 15.21 of PWD SR 2016-17**	Sqm							
	Roof		1	2.70	2.70		7.29		
	Front		1	3.60	0.60		2.16		
			1	3.60	0.40		1.44		
			1	3.00	0.60		1.80		
							12.69		
	For 10 Units						**126.90**	208.44	**26451.00**

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Basic Rate	193.00							
	Area Weightage @ 8%	15.44							
	Total	**208.44**							
14	KSRB15-3.8 : Providing 18mm thick cement plaster in single coat with cement mortar 1:4, to brick masonry including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. **Page No. 114 / Item No. 15.16, PWD SR 2016-17 (Inside Wall)**	Sqm							
	Rooms		2	2.70		3.00	16.20		
			2	2.70		3.00	0.00		
							16.20		
	Deductions - For door Doors		1	1.20		2.10	2.52		
	Windows		2	1.50		1.20	3.60		
							-6.12		
							10.08		
	For 10 Units						**100.80**	238.68	**24059.00**
	Basic Rate	221.00							
	Area Weightage @ 8%	17.68							
	Total	**238.68**							
15	KSRB15-7 : Providing lime rendering for plastering to wall and ceiling, including cost of materials, labour, curing complete as per specifications. **Page No. 115, Item No. 15.33, PWD SR 2016-17**	Sqm							
			Qty Vide Item No. 9+10				**22.77**	27.00	**615.00**
	Basic Rate	25.00							
	Area Weightage @ 8%	2.00							
	Total	**27.00**							
17	KSRB15-3.9 :Providing 18mm thick cement plaster in single coat with cement mortar 1:6, to brick masonry including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. **Page No. 114 / Item No. 15.17, PWD SR 2016-17 (Outside Wall)**	Sqm							
	Out Side		2	3.00		4.15	24.90		
			2	3.00		4.15	24.90		
							49.80		
							498.00	213.84	**106492.00**
	Basic Rate	198.00							
	Area Weightage @ 8%	15.84							
	Total	**213.84**							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
18	Supplying and fixing pressed steel door frames size 125x65 mm manufactured from 1.25mm thick carbon steel or imported steel strips with mitred joints of 900 for door openings and shutters made out of seasoned Honne wood, styles of 30 mm, thick with lock rail of 160 mm, width, top and side rails of 100 mm. width and bottom rails of 250 mm width and panel filling with 12mm thick particle board of exterior grade bonded with phenol formal dehide resin and the shutter shall be rot proof, vermin proof, heat resistant guaranteed against shrinkage, warpage and such other defects for a period of 3 years. This shall be as per approved drawings, specification and direction including cost of conveyance, manufacturing, painting with enamel paint 2 coats over primer coat, cost of labour for all items of work, machinery, equipment and all other incidental charges with all lead, lift, loading and unloading etc., complete. The Hollow portion of the frame to be filled with cement concrete 1:2:4. **Page No. 39 / Item No. 7.26, PWD SR 2016-17**	Sqm							
			1	1.20		2.10	**2.52**		
	For 10 Units						**25.20**	3780.00	**95256.00**
	Basic Rate	3500.00							
	Area Weightage @ 8%	280.00							
	Total	**3780.00**							
19	"Supplying and fixing pressed steel window frame of size 100 x 50mm manufactured from 1.25 mm thick carbon steel or imported steel strips with neat mitred joints at 900degree for window openings and shall be suitable to fix M.S. grills as per design and drawings using 12mm dia rods at 100mm Centre to Centre horizontally and two members of M.S flats of 6mmx40mm size at 150mm apart, welded into a frame of 6mmx40mm size M.S. flats with 16mm size lugs, and 8 Nos. of 100mm size hinges, 4 Nos of Butt Stay pins and 4 Nos. Tower bolts and shutters half panelled and hallf glazed with shutters made out of seasoned honne wood, styles of 30mm thick and 100mm width and rails of 30mm thick and 100mm width and using 4mm thick pin headed glass and panel, filling with 12mm thick particle board of exterior grade bonded with phenol formal dehide resin and the shutter shall be rot proof vermin proof, heat resistant guaranteed against shrinkage, warp age and such other defects for a period of 3 years.This shall be as per approved drawing, specification and direction including cost of conveyance, manufacturing painting with 2 coats	Sqm							
	Windows		2	1.50		1.20	**3.60**		
	For 10 Units						**36.00**	4104.00	**147744.00**
	Basic Rate	3800.00							
	Area Weightage @ 8%	304.00							
	Total	**4104.00**							
20	KSRB 14.10-1: Flooring with 25mm to 40mm thick polished **tandur blue stone slabs** using cement mortar 1:6, 25mm thick over existing cement concrete bed or top of roof laid to line and level and jointed with cement slurry mixed with pigment to match the shade of the slab, , including cost of materials, labour, curing, polishing complete as per specifications. Specification No. KBS **Page No. 103 / Item No. 14.15, PWD SR 2016-17**	Sqm							
	Rooms		1	2.70	2.70		7.29		
	Skerting		2	2.70	0.10		0.54		
			2	2.70	0.10		0.54		

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
							8.37		
	For 10 Units						**83.70**	1210.68	**101334.00**
	Basic Rate	1121.00							
	Area Weightage @ 8%	89.68							
	Total	**1210.68**							
21	KSRB 15-14.1 : Providing and **applying two coats with oil bound washable distemper** of approved brand and shade on wall surface including priming coat with distemper primer after throughly brooming the surface free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. **Page No. 117 / Item No. 15.49.1, PWD SR 2016-17**	Sqm							
			Qty Vide Item No.9+10				22.77		
	Basic Rate	71.00					**22.77**	76.68	**1746.00**
	Area Weightage @ 8%	5.68							
	Total	**76.68**							
22	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after throughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - with primer. **Page No. 117 / Item No. 15.53.2, SR 2016-17.**	Sqm							
			Qty Vide Item No.12				49.80		
	Basic Rate	84.00					**49.80**	90.72	**4518.00**
	Area Weightage @ 8%	6.72							
	Total	**90.72**							
23	KSRB 8.6-7 : Providing and fixing on wall surface 4.0 kg / sq.cm H.D.P.E. rain down water pipes 90 mm outer dia. approved make and brand with necessary specials like shoes, bends and offsets fixed with iron clamps, wall plugs, screws, including cost of materials, labour, complete as per specifications. **Page No. 47 / Item No. 8.18, PWD SR 2016-17**	m							
			20	3.00			60.00		
	Basic Rate	428.00					**60.00**	462.24	**27734.00**
	Area Weightage @ 8%	34.24							
	Total	**462.24**							
24	Providing and Fixing Leaf Cutter Machine including transportation	No							
			10				10.00	230000.00	**2300000.00**
	CC Camera								
25	Outdoor PLZ IP Cameras with 20 X optical zoom with controller along with suitable mounting system (PTZ Pan Tilt and Zoom feature is availbale in this camera can be contolled by the software for pan Tilt and zoom feature at the contol center and can be programmed to view at different angles and zoom level continuosly. It operates at day and night and the viewing distance at clarity is about 100 metres	Nos							
	For 9 Nos In Ward limits		9				9.00		
							9.00	78462.00	**706158.00**
	Approved Data Rate	78462.00							
26	Bracket (Corner Mount / Pole Mount/ Wall Mount) for mounting the PTZ camera.	Nos							
	In Ward limits		54				54.00		
							54.00	4267.00	**230418.00**
	Approved Data Rate	4267.00							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
27	Outdoor 50 Meter IP Cameras with IR & Mounting Bracket (with IR for day and night vision and can provide a viewing distance of 50 metres)	Nos							
	In Ward limits		54				54.00		
							54.00	21160.00	**1142640.00**
	Approved Data Rate	21160.00							
28	Bracket and weatherproof Installation kit for 50 Meter IP Camera	Nos							
	In Ward limits		54				54.00		
							54.00	1545.00	**83430.00**
	Approved Data Rate	1545.00							
29	Outdoor 30 Meter IP Cameras with IR & Mounting Bracket (with IR for day and night vision and can provide a viewing distance of 30 metres)	Nos							
	In Ward limits		54				54.00		
							54.00	15260.00	**824040.00**
	Approved Data Rate	15260.00							
30	Bracket and weatherproof Installation kit for 30 Meter IP Camera	Nos							
	In Ward limits		54				54.00		
							54.00	1491.00	**80514.00**
	Approved Data Rate	1491.00							
31	32 Channel NVR DS 7732 NI- E4 (with 4 Sata Option) the control box and the recording device to connect upto 32 devices, can be cascaded to provide additional cameras	Nos							
	In Ward limits		9				9.00		
							9.00	66982.00	**602838.00**
	Approved Data Rate	66982.00							
32	12 TB NAS Box for Back up (NET GEAR) provides storage for the recorded data for quick view back and storage	Nos							
	In Ward limits		9				9.00		
							9.00	257420.00	**2316780.00**
	Approved Data Rate	257420.00							
33	4 TB SATA for storage and fitted in the NVR Device for storage	Nos							
	In Ward limits		18				18.00		
							18.00	22850.00	**411300.00**
	Approved Data Rate	22850.00							
34	A suitable sheet metal control panel to house site Equipments (Weather Proof) The power supply and the ethernet connectivity adaptor is stored in this box.	Nos							
	In Ward limits		108				108.00		
							108.00	1526.00	**164808.00**
	Approved Data Rate	1526.00							
35	Power supply for the camera.	Nos							
	In Ward limits		108				108.00		
							108.00	461.00	**49788.00**
	Approved Data Rate	461.00							
36	Ethernet Switch for connectivity to Internet and Camera	Nos							
	In Ward limits		108				108.00		
							108.00	950.00	**102600.00**
	Approved Data Rate	950.00							
37	Supply & Laying of Network and Power Cables from Camera to the control Box.	Nos							
	In Ward limits		81				81.00		
							81.00	389.00	**31509.00**
	Approved Data Rate	389.00							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
38	Video Manager Application Software for Display and Management of Camera on Video Display.	Nos							
	In Ward limits		54				54.00		
							54.00	20000.00	**1080000.00**
	Approved Data Rate	20000.00							
39	Installation, Erection & commissioning charges	Nos							
	In Ward limits		54				54.00		
							54.00	5060.00	**273240.00**
	Approved Data Rate	5060.00							
	Sub Total								**13106631.00**
	Tender Premium @ 10%								**1310663.00**
	Third Party Inspection Charges @ 1%								**131066.00**
	BESCOM Deposit for Rooms		10					35000.00	**350000.00**
	Add for unforseen and rounding off								**1640.00**
								Total	**14900000.00**
Rupees One Crore Forty Nine Lakh(s) Only									

CERTIFICATE:

1 The work spot has been inspected and the work is found necessary.
2 This estimate is prepared as per PWD SR of 2016-17 and Approved Data Rate.
3 The provisions were made in this estimate are necessary and adequate.
4 This works come under B.B.M.P. limits.

Assistant Engineer
Ward No. 07

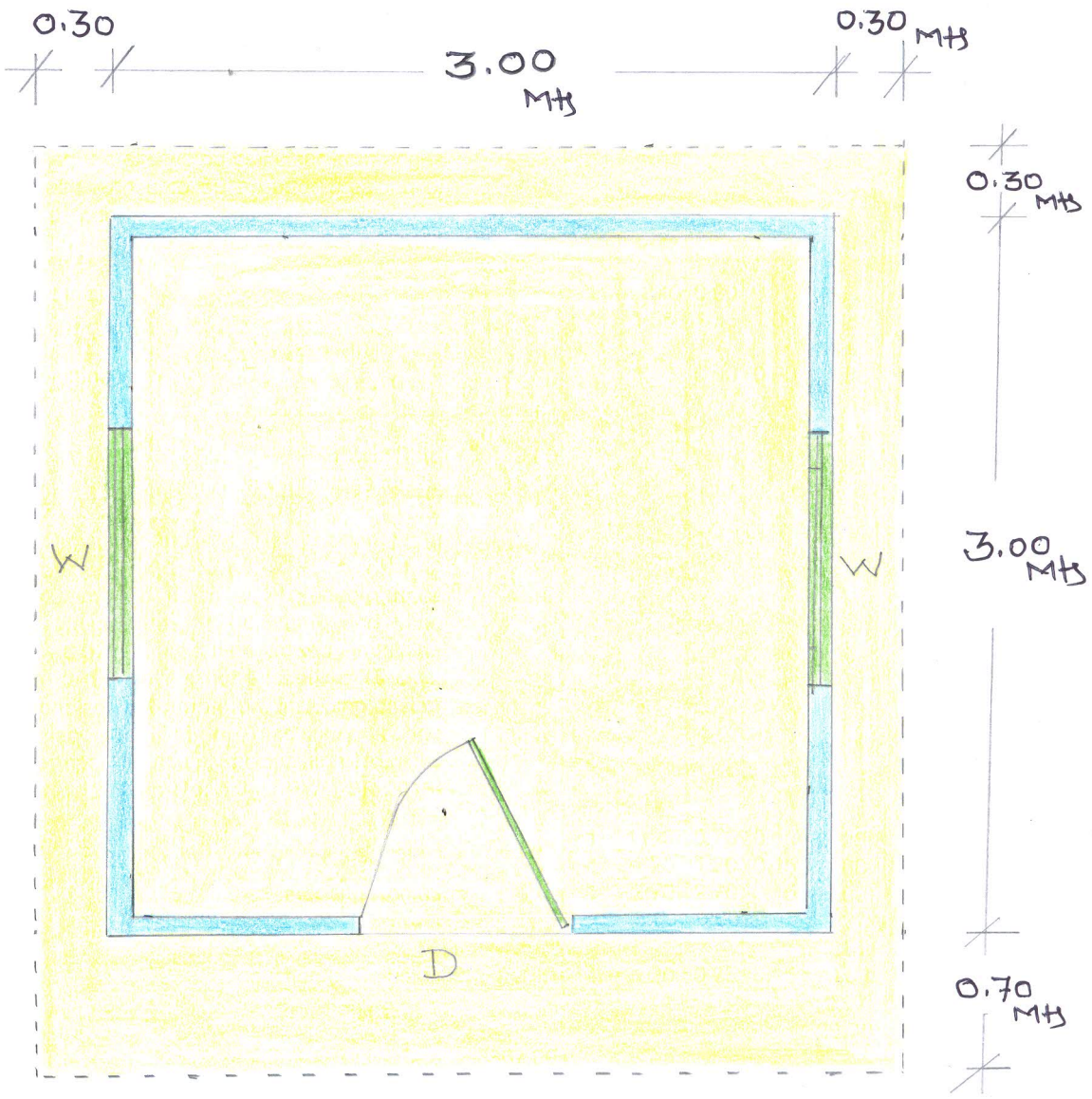
Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike
Kodigehalli Sub Division

Executive Engineer
Bruhat Bangalore Mahanagara Palike
Byatarayanapura Division

ADMINISTRATIVE APPROVAL
Accorded For Rs. One Lakh Forty Nine Lakhs only
Head of A/c. P-3298
Div. Ref. No. 163/KD-118 Date. 12/01/18
AE
EE(BTP) 12/01

Technical Sanction
Accorded For One hundred & forty nine lakhs only
Head of A/C. P 32 98
CER NO : TS 505/17-18 Dt. 12.01.18
[TA] CE (YNK)

Name of Work: Providing Basic Amenities and Procurement of Dustbins in Sahakaranagara, Byatarayanapura, Sanjeevininagar in Ward No. 07, Byatarayanapura.



Sketch For Leaf Cutter Room

Assistant Engineer
Ward No. 07

Assistant Executive Engineer
Kodigehalli Sub Division